

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) Radically coupled PTFE polytetrafluoroethylene polymer compounds compound comprising at least one of radiation-chemically and/or and plasma-chemically modified PTFE powders polytetrafluoroethylene powder including a surface, on the particle surfaces of which and at least one olefinically unsaturated polymers are polymer chemically radically coupled on the surface via a reactive conversion into melt.
2. (Currently Amended) Radically The radically coupled PTFE polytetrafluoroethylene polymer compounds compound according to claim 1, in which the wherein bonding site of the at least one olefinically unsaturated polymers polymer with the PTFE particle surface is randomly distributed on the polymer chain.
3. (Currently Amended) Radically The radically coupled PTFE polytetrafluoroethylene polymer compounds compound according to claim 1, in which wherein the PTFE polytetrafluoroethylene powder is radiation-chemically modified.
4. (Currently Amended) Radically The radically coupled PTFE polytetrafluoroethylene polymer compounds compound according to claim 3, in which wherein the PTFE polytetrafluoroethylene powder is radiation-chemically modified with a radiation dose greater than 50 kGy.

5. (Currently Amended) ~~Radically~~ The radically coupled PTFE polytetrafluoroethylene polymer ~~compounds~~ compound according to claim 4, ~~in which~~ wherein the PTFE polytetrafluoroethylene powder is radiation-chemically modified with a radiation dose greater than 100 kGy.

6. (Currently Amended) ~~Radically~~ The radically coupled PTFE polytetrafluoroethylene polymer ~~compounds~~ compound according to claim 1, ~~in which~~ wherein the PTFE polytetrafluoroethylene powder is radiation-chemically modified in the presence of reactants.

7. (Currently Amended) ~~Radically~~ The radically coupled PTFE polytetrafluoroethylene polymer ~~compounds~~ compound according to claim 6, ~~in which~~ wherein the PTFE polytetrafluoroethylene powder is radiation-chemically modified under the influence of oxygen.

8. (Currently Amended) ~~Radically~~ The radically coupled PTFE polytetrafluoroethylene polymer ~~compounds~~ compound according to claim 1, ~~in which~~ wherein the ~~polymers have at least one olefinically unsaturated polymer includes~~ olefinically unsaturated groups in the ~~at least one of~~ main chain and/or in the ~~and~~ side chain of the ~~at least one olefinically unsaturated polymer~~.

9. (Currently Amended) ~~Radically~~ The radically coupled PTFE polytetrafluoroethylene polymer ~~compounds~~ compound according to claim 1, ~~in which~~ wherein SBS, ABS, SBR, NBR, NR and other butadiene and/or isoprene-homo-, -co- or -ter-polymers are radically coupled as olefinically unsaturated polymers.

10. (Currently Amended) Method for producing a radically coupled PTFE polytetrafluoroethylene polymer ~~compounds~~ compound according to one of claims 1 through 9, ~~in which~~ comprising at least one of radiation-chemically and plasma-chemically modified polytetrafluoroethylene powder including a surface, and at least one olefinically unsaturated

polymer chemically radically coupled on the surface via a reactive conversion into melt,
comprising reactively converting in a melt powders are reactively converted
polytetrafluoroethylene powder and at least one olefinically unsaturated polymer, the
polytetrafluoroethylene powder including with reactive perfluoroalkyl-(peroxy) radical centers
after [[a]] at least one of radiation-chemical and/or and plasma-chemical modification into a melt
with the addition of olefinically unsaturated polymers.

11. (Currently Amended) Method The method according to claim 10, in which wherein
the polytetrafluoroethylene powder comprises radiation-chemically modified PTFE
polytetrafluoroethylene powder is used.

12. (Currently Amended) Method The method according to claim 10, in which wherein
the PTFE polytetrafluoroethylene powder is radiation-chemically modified with a radiation dose
greater than 50 kGy.

13. (Currently Amended) Method The method according to claim 12, in which wherein
the PTFE polytetrafluoroethylene powder is radiation-chemically modified with a radiation dose
greater than 100 kGy.

14. (Currently Amended) Method The method according to claim 10, in which wherein
the PTFE polytetrafluoroethylene powder is radiation-chemically modified in the presence of
reactants.

15. (Currently Amended) Method The method according to claim 14, in which wherein
the PTFE polytetrafluoroethylene powder is radiation-chemically modified under the influence
of oxygen.

16. (Currently Amended) Method The method according to claim 10, in which wherein
the PTFE polytetrafluoroethylene powder is used as a micropowder.

17. (Currently Amended) ~~Method~~ The method according to claim 10, ~~in which~~ wherein the reaction into a melt is realized performed in a melt mixer.
18. (Currently Amended) ~~Method~~ The method according to claim 17, ~~in which~~ wherein the reaction into a melt is realized performed in an extruder.
19. (Currently Amended) ~~Method~~ The method according to claim 10, ~~in which~~ wherein polymers with olefinically unsaturated groups in the main chain and/or in the side chain are used ~~the at least one olefinically unsaturated polymer includes olefinically unsaturated groups in at least one of~~ main chain and side chain of the at least one olefinically unsaturated polymer.
20. (Currently Amended) ~~Method~~ The method according to claim 10 ~~in which as the at least one olefinically unsaturated polymer polymers~~, is SBS, ABS, SBR, NBR, NR and other butadiene- and/or isoprene-homo-, -co- or -ter-polymers are used.